

July 7, 1998

WHS 98-04

TO: County Agricultural Commissioners

SUBJECT: INSTALLATION OF IRRIGATION PIPE DURING SOIL  
FUMIGATION

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The Department of Pesticide Regulation (DPR) continues to receive inquiries about the installation of irrigation pipe during bedded methyl bromide soil fumigation. We have reexamined the issue.

The installation of sprinkler irrigation pipe during soil fumigation is not recognized in the current suggested soil permit conditions for methyl bromide. This procedure was used in some areas before the current permit conditions were issued. Some growers would like to continue the practice. The typical reasons given for this practice are that the water may help keep the tarpaulin in place in windy conditions, may help to seal the surface of the soil in the furrows, and may help to reduce off-site emissions. Although we may agree this practice offers some advantages with respect to the above reasons, the potential for excess worker exposure is the primary reason DPR does not support this practice. Secondly, DPR has not placed a value on this practice as a mitigation measure and the practice may not be permitted by newer product labeling.

Preliminary data collected early in the permit condition development showed this procedure could result in serious over exposure to workers involved in pipe installation. Of the exposure data submitted to DPR, one measured exposure was considerably above the level of concern and above the concentration where

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respiratory protection would have been necessary. No explanation was forwarded to explain this occurrence. Based on this data set, DPR concluded this irrigation practice is not possible to routinely perform without exceeding the DPR target exposure value. Respiratory protection for these workers is not a viable option.

Regarding the reported advantages of sprinkler irrigation in respect to off-site emissions, DPR considers the buffer zones and other pertinent control methods specified in the permit conditions adequate to deal with off-site concerns. None of the suggested permit condition mitigation measures depend on wetting or weighing down of the tarpaulin. Consequently, this practice is not of any advantage with respect to compliance with DPR recommended permit condition restrictions controlling off-site mitigation.

Another basic aspect of this issue is the legality of this practice. The installation of irrigation pipe during fumigation does not appear to be allowed by the latest revisions to fumigant product labeling. Fumigant labels updated with the Worker Protection Standard labeling directions prohibit entry by any person until 48-hours after application. The only exceptions are for specific handling tasks identified on the labeling. The specific handling tasks identified are those necessary to apply the fumigant and to remove the tarpaulin, if a tarpaulin is used. Installation of irrigation pipe is not on any label we have reviewed.

If you have any questions about this letter, feel free to contact Dennis Gibbons, industrial hygienist, in the Worker Health and Safety (WHS) Branch, at (916) 445-4270.

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If you have any questions regarding compliance with the suggested permit conditions, please contact your Senior Pesticide Use Specialist.

Sincerely,

[Original signed by John S. Sanders and Charles M Andrews]

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cc: Mr. Dennis Gibbons, DPR, WHS Branch  
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Mr. Bob Chavez, DPR, Pesticide Enforcement Branch